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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,771	02/04/2004	Hiroyuki Nagao	60674 (49381)	3540
21874	7590	09/16/2005	EXAMINER	
EDWARDS & ANGELL, LLP			KUMAR, RAKESH	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			3654	
DATE MAILED: 09/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,771

Applicant(s)

NAGAO ET AL.

Examiner

Rakesh Kumar

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/04/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claim 1-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al. (U.S. Patent Number 6,091,927) in view of Hirota et al. (U.S. Patent Number 6,585,258).
2. Referring to claims 1,4,6, 9,11,14,18 and 19. Hattori et al. discloses a document feeding apparatus consisting of a sheet container 7 for containing a plurality of stacked sheets and an elevation lowering driving unit 33 for elevating and lowering the sheet container 7. Hattori et al. also discloses a sheet conveying unit 8 for individually removing the uppermost layer in contact with the sheet conveying unit 8 when the sheet container 7 is elevated by the elevation lowering driving unit 33, the sheet is removed from stack 5 and forwarded by a predetermined conveyance path shown, and further moved toward an image reading unit (Figure 1, Col. 3, lines 62-67). Hattori et al. teaches when the elevation lowering unit 33 is driven, it raises the sheet container 7 in order to bring the documents 5 into pressing contact with the sheet conveying unit 8. It is understood to mean that when a stack of media sheets of unknown height are raised and is continued to be raised, until the top most media sheet initiates contact with the sheet conveying unit 8, at some point of reference the elevation lowering unit 33 stops driving the sheet container upwards, this is understood to be taken as a sensory input which dictates the stopping of the elevation lowering unit 33 from continuously raising the media sheets beyond the sheet conveyance unit 8 (Col. 5 line 8-15).

Hattori et al. does not disclose a regulating unit as to being disposed and positioned on the sheet container nor does he disclose a position detector for detecting the position of the regulating unit.

Hirota et al. teaches of a regulating unit 13 to be moveably mounted and the position of the regulating unit 13 to be verifiable by the disposed sensors S1 on the apparatus. The sensors are disposed to allowing a signal to the controller to be sent and the position of the regulating unit 13 can be determined. Hattori also teaches of using the sensors S1 to detect the size dimensions of the sheet contained in the sheet container so that multiple size sheets can be used to feed into the apparatus (Col. 5, lines 29-36).

It would have been obvious to one of ordinary skill in the art at the time invention was made, to combine the teaching to Hattori et al. and Hirota et al. to modify the input received from the regulating unit as detected by the positioned sensors when the position of the regulating unit is altered to instruct the elevation lowering driving unit to lower the sheet container from initiating contact with the sheet conveyance unit. This is a slight modification over Hattori et al. in Figure 6, where it is disclosed that the sheet container "return" to its original position after dispensing the documents that were positioned on the sheet container 7. By lowering the sheet container from contacting the sheet conveying unit by sensing the position change of the regulating unit will allow for an easy addition and removal of sheets from the sheet container and prevent damage to the pickup roller and contamination marks on the sheets.

3. Referring to claims 2,7,12 and 17. See Claim 1. Hattori et al. discloses using the elevation lowering driving unit 33 to lowering the sheet container 7 until the uppermost layer of the sheets in contact with the sheet conveying unit 8 are separated from each other by the means of a controller. This step occurs when a detector detects a paper jam, or is engaged into a power save mode or when the documents 5 are expected to be rearranged in the sheet container (Col. 7 lines 1-16).

Hattori et al. does not disclose of using a regulating unit in the apparatus.

Hirota et al. clearly discloses sensors being able to detect a change in the position of the regulating unit 13.

It would have been obvious to one of ordinary skill in the art at the time invention was made, to combine the teaching to Hattori et al. and Hirota et al. to modify the apparatus to include sensors and a regulating unit 13 where a change in the position of the regulating unit 13 can be detected by the sensors and as a result remove the sheet container 7 from the sheet conveying unit 8 by the means of the elevation lowering driving unit 33, as a result, be able to add or load documents whenever the position of the regulating unit is changed.

4. Referring to claims 3,8,13 and 18. See Claim 1. Hattori et al. discloses a CPU 29 and a receiving unit 28 for receiving information according to the sensors positioned throughout the apparatus and storing the received information. Hattori et al. also discloses the sheet container 7 is lowered to its "preselected" position away from the

sheet conveyance unit 8 when a signal is received to disengage the sheet container 7 from the roller (Col. 7 line 7).

Hattori et al. does not disclose of using a regulating unit in the apparatus.

Hirota et al. discloses sensors being able to detect a change in the position of the regulating unit 13.

It would have been obvious to one of ordinary skill in the art at the time invention was made, to combine the teaching to Hattori et al. and Hirota et al. to modify the apparatus so that the sheet conveyance unit 8 and the sheet container 7 are disengaged by a "predetermined" amount as initially set and stored in the receiving unit 28 as disclosed by Hattori et al. when the position of the regulating unit is changed and detected. As a result the sheet conveyance roller can be prevented from being damaged and the leading edges of the sheet from being contaminated.

5. Referring to claims 5,10,15 and 20. Regarding claim 5, Hattori et al. discloses the embodiment to allow a preslected waiting time to be set between the document stacking time and elevation of the sheet container 7 (Col. 9 lines 23-30).

Hirota et al. discloses sensors being able to detect a change in the position of the regulating unit 13.

It would have been obvious to one of ordinary skill in the art at the time invention was made, to combine the teaching to Hattori et al. and Hirota et al. to modify the apparatus in such that when the documents are loaded onto the sheet container 7 and no position change is detected in the regulating unit the clocking mechanism begins,

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waiting for a predetermined time as disclosed by Hattori et al. and then elevating the sheet container 7 to engage the sheet conveyance unit. As a result, the wear on the elevating and lowering driving unit is minimized as the apparatus waits for all the documents to be loaded prior the engaging the sheet conveyance unit.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

**KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**

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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RK

Kathy Matecki
KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600